

APPENDIX U - NOISE ABATEMENT PROGRAM

U.1 - PUBLIC REACTION TO ARNG HELICOPTER FLIGHTS -

The times of our heaviest operations are on weekends and in the late afternoon and at night. It is mandatory that all aviators be aware of the noise problem, and knowledgeable in the practices and techniques used to minimize this noise intrusion when it is necessary to fly over noise sensitive areas.

U.2 - FLIGHT TECHNIQUES USED TO DECREASE NOISE DURING FLIGHT -

1. Fly at the highest practical altitude during an approach to a metropolitan area.
2. Select route into airfield/landing site over least populated area.
3. On VFR flights over metropolitan areas, follow major thoroughfares or railway roadbeds.
 - a. When using such thoroughfares (e.g. Interstate 405 or 605) stay on right side where possible.
 - b. Use flight following where available.
4. Select the final approach route with regard to the type of neighborhood surrounding the terminal.
5. If the terminal is surrounded by noise sensitive areas, steep approaches should be used.
6. Avoid low flying near hospitals, nursing homes, schools, residential areas, and other highly noise sensitive facilities and areas.

U.3 - OTHER CONSIDERATIONS -

1. Do not circle over residential or agricultural property where livestock or people are located.
2. Attempt to stay downwind of noise sensitive areas.
3. Temperature has two effects on sound:
 - a) Warm air is more turbulent and sound loses intensity (although sound travels faster in warm air).
 - b) In air without an inversion of temperature, the lower part of a sound wave tends to outrun the upper part, making the propagation, in effect, curve upward - and away from the populace. Therefore, flight in late morning or early afternoon and more so during summer months than on winter days is most desirable. Scheduling flights to and from noise sensitive areas during the warmest part of the day attenuates the noise problem.
4. Wind has two effects on sound:
 - a) Sound is carried downwind.
 - b) The background noise of high winds mask the sound of a helicopter.
 - c) Fly downwind of densely populated or noise sensitive areas.
5. The combination of no wind and an overcast on a cold morning is the most unfavorable and makes your use of the noise abatement approach over a noise sensitive area a desirable option.
6. Ground environment affects the offensiveness of the blade slapping sound. The background noise level or sound environment of residential areas reaches its lower point between late evening and early morning. In warm weather, people are apt to be relaxing out of doors in the evening and on weekends. Noise intrusion is probably the most apt to be resented at those times.